

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA2004/000559

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 E02D27/02 E02D29/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 E02D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 864 999 A (WALLIN ARNE B) 2 February 1999 (1999-02-02)	1-7, 9-11,13, 15,16 12,17
Y	column 3, line 44 -column 5, line 7; figures 2,10,11,16	
Y	US 5 588 786 A (BIRCK FREDDIE C ET AL) 31 December 1996 (1996-12-31)	12,17
A	column 3, line 34 -column 8, line 37; figures 1,2,7	1,15
A	US 2002/083664 A1 (QUEIREL JOEL) 4 July 2002 (2002-07-04) paragraph '0027! - paragraph '0038!; figures 1,2,6,7	1,15
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

13 September 2004

Date of mailing of the international search report

21/09/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5 588 272 A (HAPONSKI EDWARD L)  31 December 1996 (1996-12-31)  column 1, line 62 -column 5, line 17;  figures 1,2,4  -----</p>	1,15

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International Application No

PCT/CA2004/000559

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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			US 6244005 B1	12-06-2001
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			US 5131786 A	21-07-1992
			US 4964750 A	23-10-1990
			US 5400563 A	28-03-1995
			US 5509249 A	23-04-1996
US 2002083664	A1	04-07-2002	FR 2818998 A1	05-07-2002
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US 5588272	A	31-12-1996	NONE	